



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/889,183	07/10/2001	Michael Steffen	72.049	8529

7590

07/15/2003

Timothy E Newholm  
Boyle Fredrickson Newholm Stein & Gratz  
250 Plaza Suite 1030  
250 East Wisconsin Avenue  
Milwaukee, WI 53202

EXAMINER

ADDIE, RAYMOND W

ART UNIT

PAPER NUMBER

3671

DATE MAILED: 07/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action**

Application No.

09/889,183

Applicant(s)

STEFFEN, MICHAEL

Examiner

Raymond W. Addie

Art Unit

3671

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 24 June 2003 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

**PERIOD FOR REPLY** [check either a) or b)]

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on \_\_\_\_\_. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☒ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
  - (b) ☐ they raise the issue of new matter (see Note below);
  - (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
  - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_.

3. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.
4. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: see attachment.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☐ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_.

Claim(s) objected to: \_\_\_\_\_.

Claim(s) rejected: \_\_\_\_\_.

Claim(s) withdrawn from consideration: \_\_\_\_\_.

8. ☐ The proposed drawing correction filed on \_\_\_\_\_ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_.
10. ☐ Other: \_\_\_\_\_

**Attachment**  
**to**  
**Advisory Action**

The Applicant argues against the 112 1<sup>st</sup> paragraph rejection of Claims 1-18 by stating "The manner in which it is steered therefore also is well known to those skilled in the art...It has also been documented...Specifically, Figure III of the technical bulletin, attached hereto as Appendix A shows the control of the phase relationship of the two eccentric weights on one shaft of the machine".

However, there is no Appendix A attached to the request for reconsideration.

Further, even if Appendix A did show the control of the phase relationship of 2 eccentric weights on one shaft of the machine...in one manner to achieve left hand steering"; Specification page 3, lines 19-22 clearly state the "shafts 1, 2 as well as the eccentric masses 3, 4 can each be separated in the axial direction so as to produce a yawing moment". Hence, the suggestion of the showing in the Appendix would be irrelevant to the invention cited in the specification, because as alleged by the Applicant, Appendix A shows 2 eccentric weights on one shaft; while the invention cited in the specification requires at least a pair of shafts separated in the axial direction.

Therefore, the argument is not persuasive.

Further, the Applicant proclaims "the novelty of the present invention does not lie in the ability to steer a vibration plate through the adjustment of its oscillator's eccentric weights... That concept is well known... What *is* new is the control of such a positioning unit by electronically sensing the position of an operator element such as a joystick or a pair of levers and generating a corresponding signal that is transmitted to the position unit to effect the desired steering and directional control functions.

In support of the proclamation the Applicant suggests "one skilled in the art, reading the passages quoted above in conjunction with his or her own knowledge of the art, would be more than capable of making and using a machine meeting the limitations of the claims without undue experimentation".

However, a general allegation that one in the art would be capable of making and using a machine meeting the limitations of the claims", is not evidence that the specification enables any person skilled in the art to which it pertains, or with which it is most nearly connected, to make or use the invention commensurate in scope with these claims.

Specifically Claim 1 recites "an oscillator that... has at least 2 eccentric masses that rotate in opposite directions" is contradictory to the passages cited on page 3, lines 19-22 that disclose "eccentric masses 3, 4 can each be separated in the axial direction so as to produce a yawing moment".

Since, in order for the eccentric masses to rotate in opposite directions, the masses must be on the same shaft or on co-axial shafts; whereas the specification clearly discloses the shafts are separated in the axial direction.

Still further, neither the specification nor the claims disclose in what manner the shafts are "separated in the axial direction".

A yawing moment could in fact be created by a vertically oriented pair of parallel eccentric shafts, which would be an alternative embodiment not contemplated by the Applicant, but would in fact read on the claims.

Therefore the arguments are not persuasive and the 112 1<sup>st</sup> paragraph rejection of claims 1-18 are seen as proper and are upheld.

The Applicant argues against the rejection of claims 1, 3-5, 13, 15-17 by stating "Applicant disagrees that the Bowden cable (60) of Waschulewski provides a teaching of the operator element of the claimed type...An operator element, by definition is configured to be engaged by the operator...the claimed operator element is configured to both steer the soil compaction device and control its direction of travel...This is in contrast to the relatively complex Waschulewski Bowden cable 60, which...provides a mechanical link which through manipulation by the user, is used to only shift the compactor...It cannot steer the compactor...Shifting forces must be generated by the

operator and transmitted to the Bowden cable by some unspecified operator-manipulated structure.

However, with respect to Applicant's suggestion that "An operator element, by definition is configured to be engaged by the operator"; Applicant thoroughly admits "Shifting forces must be generated by the operator and transmitted to the Bowden cable by some unspecified operator-manipulated structure".

Hence, the Bowden cable is part of the operator element (60) that controls the positioning unit (36).

Further, Amended Claim 1 positively recites "at least one manually engageable moving operator element configured to control the positioning unit".

Hence, Claim 1 does not provide any structure features that would define the scope of the claimed "operator element". Further, In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a joystick or a pair of levers) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Further, the phrase "configured to" is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. In the present case, the prior art clearly discloses an operator element (60) that is configured to control the positioning unit (36). Therefore, the argument is not persuasive.

The Applicant further argues "although Crum et al. teaches a handle bar mounted controller, integrating the Crum et al. controller with the Bowden cable arrangement of Waschulewski would not yield the present invention...Incorporating the controller of Crum et al. in the Waschulewski compactor would render the complex shifting arrangement/Bowden cable coupled to a position device unnecessary.

However, the claimed operator element is not provided with any structure and is only defined by the function it performs. Therefore, the claimed element cannot be used to preclude the teaching of the prior art.

Further, Waschulewski clearly discloses the operator element (60) is part of and connected to **"a shifting device for actuating the shifting coupling 36 comprises a Bowden cable 60 which is used in conjunction with other structural elements included in the shifting device"**.

The fact that Waschulewski does not disclose what the shifting device may further comprise does not preclude the fact that an element, intended to be manually engageable, by an operator exists. How else would the Bowden cable be activated.

Still further, Crum et al. was not cited for its teaching of a handle bar mounted controller, as argued, but rather for its teaching of a position sensor, in the form of a resistive sensor or a Hall effect type potentiometer, for determining the position of the operator element and to produce a signal to control a positioning unit.

Therefore, the arguments are not persuasive and the rejection is upheld.

Applicant further argues "There was no motivation to combine these references at all, as doing so would required eliminating critical structure from the apparatus of the primary reference...namely portions of the complex shifting arrangement including the Bowden cable...in other words a complete re-design of the Waschulewski compactor would be required and the resulting product would not include an "operator element" as defined by the rejected claims.

The Examiner does not concur.

Firstly Waschulewski clearly discloses additional structure in combination with the Bowden cable (60) for controlling the positioning unit (36).



The fact that Waschulewski does not disclose what the additional structure may entail, does not make the reference non-combinable with the secondary reference, and in fact would motivate one of ordinary skill in the art, to consider the scope of cable activating devices for controlling a positioning unit. Further, Crum et al. teaches the use of a Hall effect sensor, {cited in claims 4, 16} in combination with a handle mounted controller for controlling a positioning unit. Therefore, one of ordinary skill in the art, would in fact be motivated to combine the position sensor with the vibrating compactor of Waschulewski, in order to maximize accuracy and precise positioning of the vibratory compactor.

Applicant further argues that Crum et al. is non analogous art, since Crum et al. teaches a throttle control for a jet-ski.

The Examiner does not concur.

Col. 4, Ins. 15-23 recite "A variety of mechanical interfaces and throttle handles are provided...for personal water craft...snow blowers and other powered vehicles and machinery to which the invention may be adapted. A major advantage is the elimination of mechanical linkages and cables".

Hence, not only is Crum et al. analogous to the art of manually engageable operator elements, Crum et al. adds further motivation for combining the references by eliminating mechanical linkages and cables, such as those cited in the primary reference to Waschulewski.

The Applicant further argues "the Examiner's statement regarding the limitation of the claimed operator element to a joystick is incorrect both as a matter of law and a matter of fact...The claims are not written in means-plus-function format and accordingly cannot be construed to be limited to the disclosed structures corresponding to the claimed elements or equivalents of those structures...in addition, a joystick is not the only device disclosed...The embodiment shown in the drawings includes 2 independently operating handles 8.

The Examiner does not concur.

Claim 1 positively recites "an oscillator that acts on the soil contact plate...whose phase relationship can be adjusted relative to one another **by means of** a positioning unit".

Hence, the structural features cited in the claims are limited to the embodiments disclosed in the specification. The fact the Applicant discloses a plurality of embodiments, does not in any way introduce the various embodiments into the claims, until explicitly cited in the claims. As put forth in Claim 14, which was not subject to the rejection of Waschulewski in view of Crum et al., as argued.

Although the Applicant cites a joystick and a pair of independently operating handles (8), are disclosed in the specification, only one embodiment is claimed, in dependent claim 14. Further, it is unclear as to what structural, functional or patentable differences exist between joysticks and independently movable control handles.

Finally Applicant argues "The Examiner has broadly over characterized the problem addressed by the invention... That problem namely the need to permit the operator of a vibration plate to shift and steer the machine without having to release a control handle with one hand and without generating fatigue, is in now way suggested by Crum et al."

However, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

The Applicant argues against the rejection of claims 1-5, 8 as being unpatentable over Stoecker in view of Ishibashi et al., by stating "the handle 16 of the Stoecker compactor performs physical work to steer the compactor in contrast to the operator element of the present invention".

The Examiner does not concur. Nowhere in the claims does the operator element preclude "a handle that performs physical work to steer the compactor".

The claims only require "at least one manually engageable moving operator element configured to control the positioning unit".

To that extent Stoecker clearly discloses "any suitable means may be provided to move shift lever (93) in the manner described"; see col. 5, Ins. 39-49. Thereby providing ample motivation to modify the patented invention to achieve a desired goal.

Further, claim 1 recites the "sensor unit is provide to...produce a signal to control the positioning unit so as to control the direction of soil compaction".

To that extent, Ishibashi et al. teaches the use of a magnetic sensor with a signal processing circuit in the form of a resistive sensor, and a hall effect IC sensor for use as a proximity switch, current sensors or encoders.

Hence, one of ordinary skill in the art would be motivated by the teachings of Ishibashi et al. to provide the vibrating compactor of Stoecker with a position sensor, such as a Hall effect IC sensor, for use as a proximity switch or current sensor, in order to increase the accuracy and reliability of the positioning unit.

Further, because the claimed "operator element" is not given any structural features, in the rejected claims, the claimed operator element cannot be used to patently distinguish from, or preclude the teachings of the prior art.

The Applicant argues against the rejection of Claims 2, 10, 11 by stating "(Riedl) reference fails to cure the above noted deficiencies in Stoecker and Ishibashi et al., that is, it does not suggest modifying Stoecker to permit an operator to both steer a compaction plate machine and control its direction of travel using a sensor to detect

movement of the a system of levers or some other manually manipulated operator element and that generates a signal used to control a positioning unit in order to both steer a soil compaction device and to control its direction of travel.

However, as cited previously Stoecker clearly discloses "any suitable means may be provided to move shift lever (93) in the manner described"; see col. 5, lns. 39-49. Thereby providing ample motivation to modify the patented invention to achieve a desired goal.

Further, Applicant's arguments are not directed to the language or subject matter of Claims 2, 10, 11 and hence are moot.

Applicant argues against the rejection of Claim 9 as being unpatentable over Stoecker in view of Ishibashi et al. and Artzberger by stating "The Artzberger patent discloses the only system cited by the Examiner that both steers a machine of anything remotely resembling the claimed type and controls its direction of travel...It in no way suggests the use of a sensor to detect the position of an operator element on the machine to control the machine in the manner recited in claims 1 and 13 and discussed at length above.

However, the rejection is directed toward the subject matter of Claim 9, and not to claims 1 and 13 as argued. Hence, the argument is moot.

Claim 9 positively recites "in addition to the operator element, a remote control unit is provided with a sending unit that can be spatially separated from the soil compaction device and with a receiving unit attached to the soil compaction device, wherein a signal can be produced by the receiver unit to control the positioning unit".

To that extent, Stoecker clearly discloses "any suitable means may be provided to move shift lever (93) in the manner described"; see col. 5, lns. 39-49. Thereby providing ample motivation to modify the patented invention to achieve a desired goal.

Further, Artzberger teaches it is desirable to provide a remote control unit having a sending unit, which is capable of controlling the speed and direction of travel of a soil compacting machine. Artzberger further discloses the use of a remote control unit permits an operator to control the compacting device, from a safe distance, while the compacting device is disposed in a dangerous area, such as a deep trench.

Hence, the Artzberger reference was combined with the teachings of Stoecker in view of Ishibashi et al., in order to show the obvious use of a remote control unit, to distance the operator from the device when used in dangerous areas such as deep trenches, and not to a sensor to detect the position of an operator element on the machine, as argued, which in fact is taught by Ishibashi et al., see col. 4.

Therefore, the rejection is seen as proper and is upheld.

Applicant argues against the rejection of Claims 1-6, 8, 13, 15-17, as being unpatentable over Riedl in view of Crum et al., by stating "There is no disclosure in Riedl of adjusting the phase relationships of shafts and/or eccentric weights to effect side to side or curvilinear steering of the type required by both claims 1 and 13. However, Claim 1 positively recites "an oscillator that acts on the soil contact plate...whose phase relationship can be adjusted relative to one another by means of a positioning unit in order to control the direction of soil compacting device travel and to steer the soil compaction device.

Therefore, the applicant's suggestion that the claim positively recites "side to side or curvilinear steering of the type required by both claims 1 and 13"; is not supported by the actual claim language. The claims only provide for a general description of "direction of travel" and to "steer the compaction device". And does not provide for any specific "type of steering". Applicant is reminded that although the specification positively recites a "yawing motion" such is not specifically recited in the claim language, and hence cannot be "read into the claims". Therefore, any element that adjusts the motion of the compacting device, in any direction, would in fact read on the claims.

Applicant further argues "the phase adjustment that is achieved, is achieved purely hydraulically through operation of a hydraulic controller 12".

Applicant is reminded that Claim 17, which depends directly from independent claim 13 positively recites "wherein the positioning unit has a fluid-activated piston/cylinder unit as well as an electromechanical valve controlled by the signal from the sensor unit to control a fluid stream at the piston/cylinder unit.

To that effect Riedl positively recites, in col. 3, Ins. 4-7 "adjustment member (10) is randomly displaceable via a double acting hydraulic servomotor...this servomotor includes 2 piston rods (12) that extend through the shaft, engage against one or the other side of the adjustment member 10 and are rotatably connected therewith". Further, in Col. 4, Ins. 33-44, Riedl positively recites "cylinders (14) can be controlled by a control valve (18); which in fig. 1 is illustrated as an electromechanical valve. Therefore, Applicants' argument is not persuasive.

In response to applicant's argument that "if Crum et al. were analogous art...it at best would have suggested replacing the direct hydraulic connection of the device 12 of Riedl to Riedl's housing 1 with an indirect connection in which movement of the lever 13 is detected and some type of servo device is used to increase or decrease the hydraulic pressure in chamber 10", the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references.



Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Hence, the argument is not persuasive and the rejection is upheld.

Applicant argues against the combinations of Riedl in view of Crum et al, and various combinations of Sutherland, Garnjost and Artzberger by stating "none of the tertiary references cures the base deficiency of Riedl and Crum et al".

Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Applicant further argues, with respect to claim 14 "Garnjost does not...disclose multiple control levers as claimed...it merely discloses unidentified 'means' for individually controlling the angular position of a plurality of rotating masses...More importantly the masses...are used for aircraft turbo-fan vibration suppression rather than to generate vibrations in a compaction plate".

However, In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In this case, Riedl clearly discloses the eccentric weights (which generate the vibrations in a compaction plate) can be adjusted by an adjustment member (10) via a double acting hydraulic servomotor...a first embodiment this servomotor include 2 piston rods 12. Garnjost positively recites "The present invention provides a novel mechanism to generate such a dynamic force pattern...the improved device has six identical modules or units...21A through 21F which may be arranged in groups of three pairs...each module or unit has an eccentric mass 22, a motor 23 arranged to rotate the associated mass...and means 24 for individually determining and controlling the angular position of the associated mass". See col. 3, Ins. 26-42.

Since, Riedl already teaches the use of at least one operator element (10/12), to control the eccentric masses mounted on at least a pair of shafts, it would be obvious to one of ordinary skill in the art, based on the teachings of Garnjost, to provide an individual means to control each shaft or eccentric weight individually.

Further, Applicant is reminded the teachings of Garnjost, were combined with the teachings of Riedl in view of Crum et al., for Garnjosts' teaching of controlling eccentric weights individually, and not for its teaching of vibration suppression in an aircraft turbo-fan, as argued. The intended use/field of application is irrelevant to the structural relationships between the control system and the eccentric weights being controlled. Applicant is further reminded that it is old and well known that some horizontal forces between the opposing eccentric weights must be suppressed "canceled out", in order to achieve the desired direction of travel.

Applicant argues against the Artzberger patent by restating "it merely discloses the same sort of remote control that is present in the prior art-albeit with a different type of controlled unit...It in no way suggests the use of a sensor to detect the position of an operator element on the machine to control the machine in the manner recited in claims 1 and 13".

Applicant is reminded that the Artzberger reference was cited for its teaching of a remote control unit to control direction and speed of a soil compacting machine, as cited in claim 9, and not for a teaching of a sensor, as argued.

The sensor for detecting the position of an operator element is already provided by the secondary reference to Crum et al., and hence need not be repeated by and tertiary reference. Therefore, the argument is not persuasive and the rejection is upheld.

Applicant's final argument against the primary references to Waschulewski, Stoecker and Riedl suggests "there would be no motivation to include such a position sensor as disclosed in Crum et al. or Ishibashi et al. with either of these devices.

However, as cited above, Waschulewski clearly discloses "A shifting device for actuating the shifting coupling (36) comprises a Bowden cable (60), which is used in conjunction with other structural elements included in the shifting device to apply traction to lever 40...Bowden cable (60) and its associated elements in the shifting device can be used to develop a torque which acts in opposition to the torque caused by the centrifugal force of the shaft 22 and lever 40 in rotation" (see col.4, ln. 60-col. 5, ln. 2) such that "This action effectively brakes the unbalanced shaft 22 and its associated eccentric mass 20...This first operative coupling position in which the arm 50 engages the stop 38 preferably corresponds to the traveling direction forward of a soil compactor upon which the eccentric vibration machine is utilized...To shift the eccentric vibration machine into its second or reverse operating mode, the Bowden cable 60 is operated. Although Waschulewski does not disclose what the "other structural elements include; the secondary references cited provide sufficient structural features and relationships, as well as obvious advantages brought out by the obvious modifications of the primary reference.

Art Unit: 3671

Further, Crum et al. adds further motivation for combining the references by eliminating mechanical linkages and cables, such as those cited in the primary reference to Waschulewski.

Hence, the arguments are not persuasive and the rejections are upheld.



ROBERT E. PEZZUTO  
PRIMARY EXAMINER